

AVIATION

The Oldest American Aeronautical Magazine

AUGUST 23, 1926

Issued Weekly

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Air Corps Martin Bombers Flying in Formation over Wright Field, Fairfield, O.

Army Air Corps Photo

VOLUME
XXI

SPECIAL FEATURES

NUMBER
8

THE PROPOSED TRANS-ATLANTIC FLIGHT
PROGRESS OF THE AIRPLANE RELIABILITY TOUR
THE WRIGHT-MOREHOUSE 25-30 HP. ENGINE

GARDNER PUBLISHING CO., INC.
HIGHLAND, N. Y.

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**THE ADVANCE AIRCRAFT COMPANY
TROY, OHIO**

AVIATION

VOL. XXX NO. 8

AUGUST 25, 1936

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No. 8 is our series of SCINTILLA magnetron spark engines derived from Type AG 4 SCINTILLA Aircraft Magnetron mounted in a rugged housing parallel to the axis of the crankshaft.

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Texas-Chicago Air Mail Operates 97 per cent Perfect

NATIONAL AIR TRANSPORT, INC., on Aug. 13, announced the first successful operation of its scheduled route Texas-Chicago line, with an average efficiency of over 97 per cent.

Simultaneously with the closing of this first quarter-year of experimental flying, the General Manager, Col. Frank House, former Second Assistant Postmaster General, announced that he had recommended to his board of directors that passenger service be established just as quickly as the necessary equipment can be produced. This indicates that in two years and a half the present route operated by the National Air Transport when it began operations on May 12.

"Our desire to begin operations, which have been far more successful than we had reason to expect from a pioneer effort, and is also greatly accelerated by the desire of the people in the Southwest for quick transportation to Chicago and the East," said Colonel Henderson.

Under contract with the Post Office Department to fly this route from Dallas to Chicago via Fort Worth, Oklahoma City, Wichita, Kansas City, St. Joseph, Tulsa, Rock Island, and Des Moines—total 1,600 miles—an elapsed time of 120 min., N. A. T. planes showed an "on time" record of 80% plus during the 30 days of May, 97.4% during June 1925, during July, and 90% plus during the ten days in August. At Chicago the N. A. T. efforts coincide with the Government-operated New York-Chicago commercial and transcontinental services. "Star service," and Col. Henderson, "has been particularly 100% perfect during the last ten days in August. Only once in 30 days have we failed to deliver our cargo at Maywood, a large portion of which is through mail to New York, Philadelphia, and Boston. That loss occurred on May 18, when we deliberately held our northbound plane at Tulsa, due to the tornado which swept West of Chicago with such disastrous results. Leaving Tulsa before dawn the following morning, we had our mail on the scheduled transcontinental airplane leaving Maywood at 7:58 a.m.

On the other hand, the Government operations between New York and Chicago have been such as to necessitate the N. A. T. incident leaving Chicago for the Southwest on Monday, two of their many one day before the New York air mail plane, operated by the Government, arrived in Chicago, and, notwithstanding the fact that National Air Transport's plane waited in Chicago two hours and three minutes after the hour scheduled for departure in the hope that the New York machine would come through. The reason for this is that the flying between Chicago and New York is made extra difficult, due to logs which are frequently down over the

Allegheny mountains. The Government is attempting to fly this route with old scheduled single-engine airplanes. These old planes are not so good, and their use, planes are no better than those being used by the N. A. T. over the Texas-Chicago route where flying conditions are much easier. In any event, it will be too much to hope that this New York-Chicago overnight service will improve until the Government acquires modern, four-engine airplanes for this flying. With this fact demonstrated to our satisfaction, the National Air Transport has had built for it by the Ford Motor Car Company, what is thought to be the most modern airplane of today (the Ford four-engine monoplane—Eaton). This airplane, made entirely of metal, and equipped with three superchargers Wright Whirlwinds, outruns performance and safety. It is one of these three engines comes to function properly, the airplane is able to continue its way. If the ship, the third engine is safe landing by sliding a greatly lengthened gliding ramp. About Sept. 3, National Air Transport will run the first of its three-engine airplanes over the Texas-Chicago route. Announcement as to the date passengers will be carried is scheduled (which will be made shortly).

In 90 days, N. A. T. planes have flown 254,000 miles, with cargo. Carrying at empty machines and the transportation of passengers longer the total mileage up to about 300,000 for the quarter. The N. A. T. fleet, in addition to the Ford monoplane, comprises 10 Curtiss Carrier, Pigeon, a De Havilland and a Wright Whirlwind Travel Air. Out of 308 separate flights with mail, the route being held at Kansas City, only 19 forced landings have been experienced. On these, only one was due to mechanical difficulty—rubber trouble. All other forced landings were caused by heavy weather. In every instance the pilots, after a short delay, proceeded on their way.

"The National Air Transport has made a phenomenal record in its operations from Texas to Chicago for the last three months of its existence," said Colonel Henderson. "The mail estimated to it has been delivered promptly on time every day. It has not had as much mail as it expected to have, and it has not had as much as it should have had, due largely to the fact that the Government has so frequently failed to deliver cargo and overnight to Chicago in time to connect with us. The effect of such delays is to irritate persons and very much to embarrass our traffic subsidiaries, but even at that, in the first quarter we have safely transported 20,600 lb. of mail—over 11 tons—and have given our pioneer RTS perfect service. Our daily loads, comprising mostly of business letters, averaged 40 lb. per pound, in some cases 500 lb."

The wing of the mailplane monoplane type and is built in one piece, tapering from the root to the tip in both plan

The Heath Sport Plane

A Low Power Single Seater Cantilever Monoplane of Exceptionally Clean Lines. The Latest Product of the Heath Airplane Company.

THE HEATH Sport Plane, designed by Clarence Lloyd, chief engineer, and E. B. Heath, president, of the Heath Airplane Company, of Chicago, and built in the Heath Airplane Company's shop under Mr. Lloyd's supervision, is undoubtedly one of the trimmest little planes known at this season. It is constructed throughout and under stress members are made to meet its clean lines as much as under structure. It is powered with the Ford V8 engine which develops 50 hp. at 2,000 r.p.m. It will be remembered that this engine has a bore and stroke of 3.54 in. and 4.93 in. respectively and a displacement of 75 cu. in.

and section. It is constructed around two main spars. The front spar is tubular and forms the leading edge. The rear spar is of the rectangular box type, being 16½ in. deep at the root. The pilot's cockpit is built right into the wing, the pilot sitting between the main. Part of the fuselage is also fixed into the wing. The ailerons, control surfaces with the aid of the tapering wing. All control cables and pulleys are contained inside the wing.

Trim Construction

The tail unit is also of cantilever construction and here, too, all cables have been carefully kept out of sight. The landing



The Heath Sport Plane. The photograph might almost be assumed a study in clean lines as airplane design. The engine is the Standard Chevrolet 30 hp.

The machine was built with the greatest care and skill, to get every ounce of performance out of it and keep the weight down to a minimum. The landing structure itself weighs only 22 lb. Yet, it is as strong as any big airplane structure in comparison. The landing is of the Warren truss type, having square timbers and steel and three city pump pins. It is covered with fabric to silver finish. The nose is well strengthened with aluminum, which blends in appearance with the rest of the machine.

The wing is of the cantilever monoplane type and is built in one piece, tapering from the root to the tip in both plan

and section. It is only 16½ in. in height and is built in a unit with the fuselage. No bracing wires are used on this small landing gear.

Specifications and Performance

The plane has been entered in the two light plane races and the 400 in. air sport plane race at the National Air Races at Philadelphia. It will be piloted by E. B. Heath. Detailed specifications of the Heath Sport Plane, together with the most favorable figures of performance, are in following.

(Continued second column, page 332)



Another view of the Heath Sport plane (Standard Chevrolet 30 hp.)



Above: E. B. Heath's plane

How Army Air Corps Machine Builders flying in formation in the maneuvers held a few months ago at Wright Field, Ohio.

REMEMBER — NATIONAL AIR RACES, SEPT. 4-11

The interest of a good many individuals, especially in the upper west of the Mississippi, is in a good type for purchase of a small two-seater efficient modern plane which would burn at 40 m.p.h. or less, is strongly and safely built, has a cruising speed of 75 m.p.h. or over, has an economical modern light air-cooled engine, and which is priced cheaply and sold by an unflinching and solid business representative. Even the planes on this Tour which began to approach these conditions have not begun to use the sales opportunities offered. The Eaglehawk planes from Dayton, among the low-powered OXS jobs, have done some demonstrating and distribution of descriptive pamphlets, and have thus done more than others in these districts. The Beez M-1 has been doing important beautiful demonstrations of slow and high speed, maneuverability, and climb, and has frequently shown its control at standing speed to these few watchers among the general public who realized its importance.

Success and Results to Date

A nationwide tour is being staged by the Travel Air (Wright Whirlwind) piloted by Walter Bush and the Beez-Verele Austin (Wright Whirlwind) flown by Louis G. Mosier for the leadership in the good sense, with the Mercury Arrow (Dayton) (C) of the Aerial Service Corporation, piloted by Henry H. Hunsaker, keeping so close to the leaders that a slight in-bow would shake the standing.

All of the figures and results given here and hereafter are excellent ones which results are to be verifiable only at Dayton at the finish, but it is believed that they are correct. The Austin took slightly longer for its climb and reached more than the Travel Air. Series climbed to 326 and 345 for a total of 21.8 sec. against 3.4 and 5.6 sec. for a total of 20.4 sec. for the Travel Air. Mosier, the Beez-Verele man has a carrying 300 lb. weight (gross load) against 200 lb. for the Travel Air and 200 lb. for the Mercury Arrow which gives it an edge in the "secret number" (by which the speed is multiplied to get the score) over its two close rivals.

Due to the increasing value of data will be found the most analysis for all the competing planes. The complete data for these airplanes was available after leaving Detroit and the big scores were found simply by multiplying by the speed of

each plane for the legs. This number is 2419 for the Austin, 2395 for the Travel Air, and 2447 for the Mercury Arrow. These figures are of interest because they are scores of all the qualities taken into consideration by the Tour except that of speed. It is a word of note that all of these three leaders were equipped with brakes which added their measurably in cutting down their climb and quick take-off. One of the Captain C. S. Moore was the closest approach to these scores without a brake, with a mark of 2025. The big Ford three-cylinder air liner carried a figure which topped them all at 2536 by getting off in 7.9 sec. and landing in 11.9 sec. before its full stoppage. It carried a pay load of 1500 lb. in the performance but its figures do not affect the standing of the single-engine class.

An even quicker take-off than any of the three was demonstrated by a plane equipped when owned by D. J. A. Newman and piloted by C. H. Davis, who lifted the machine off in just 0.8 sec. in a beautiful performance. Among the OXS planes, the Hawk Two showed the quickest take-off, getting off in 1.6 sec. closely followed by the Phoenix Gearing at 1.1 sec. with 280 lb. pay load and one of the two Keystone entries carrying 302 lb. which jumped off in the same time. All these tests were made with gasoline tanks full, so that a study of the corresponding tabulated fuel capacities will find further significance in these performances. One of the Eaglehawk landed in 3.4 sec. without brakes, and the Swallow, with 300 lb. pay load, the worst in this Eaglehawk entry, stopped in 4.5 sec. The Phoenix Gearing had the best combined climb and control times among the OXS jobs.

Fewer OXS's

There is a strong feeling all over the number of OXS equipped entries, there being only eight, or less than a third the year against a clear majority last year. This is an understandable indication that we are at last turning to more modern design for personal planes, and that the faithful but heavy power plant of so many Jannet and Standard is at last giving way to efficient lighter engines, though because of the lack of a proved engine in the same power class, most of the manufacturers have carried planes of higher power.



Such planes as the Travel Air, the Beez-Verele Austin (Wright Whirlwind) piloted by Louis G. Mosier, and at Wichita, comes up with an even place in the Beez M-1 airplane (Wright Whirlwind) which put in some fine demonstration flights at standing speed, with Henry Hunsaker, piloted by the Fairchild Airplane Co., with the Curtiss J-3, with the OXS group at Wichita. A. Harold J. P. the three (left) and the Phoenix Gearing (Curtis OXS) which is a slightly landed on one wheel. To Mr. Phoenix is AVIATION selected for carrying its representative around the Tour.

PRICE REDUCTION

The 11 Super Swallow

with many added features and refinements

NOW \$2250.

FULLY EQUIPPED, AT OUR FIELD



Sets Four People
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Increased Climb
Greater Speed
Four Ailerons
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Control
Streamline Wings

The Greatest Value in Commercial Aircraft

WRITE OR WIRE FOR DELIVERY DATES

Swallow Airplane Manufacturing Co.
Wichita, Kansas

Side Slips

By ROBERT B. COOPER

The report has reached us that some advertising bills came down out of the air at Atlantic City, N. J. the other day as which were printed announcements of some sort of a calendar that were out in Atlantic City. The man who was doing the bookkeeping of advertising bills airplanes for that section of Missouri should allow more for the wind in the future, it is probable that the rest of them bills went out to sea.

This brings to mind an interesting hypothetical legal question—who should pay for the damage of these weather conditions, the farmer or whose field his "blast" actually lands on the day whose field was being flown over when it was let loose?

Henry Ford's birthday announcement of a new "faster" airplane is interesting but we are not going to be enthusiastic about the new plane until it has been in use for a few years and has had a chance to develop its own flying character. But that we are questioning the strength or design of the plane in any way, you understand, but there is a possibility of the development of a type of pilot corresponding in character to the present northeastern flier. This great pilot, whose chief aim in life seems to be the passing of as many other cars as possible on steep hills, cutting in ahead in tight traffic unsentimental of damage to his own flying machine, not minding in places where nothing really means anything, certainly will not be a welcome addition to the air fraternity. However, there is the chance that an aerial flier may keep better company, as we are all aware, we'll keep an open mind on the subject and be content for the present with field prices.

* * *

We do think though, that Mr. Ford is making the loss of one of the best traditions associated with his industry in

equipping his recent airplane models with air-cooled engines. What is going to become of that old adage that no Ford is worth anything until it starts boiling over?

* * *

Our friend, the Editorial Director, evidently was an impatient sight when he dropped in to see us last week. He has been spending his vacation at one of the camps for training reserve flying officers, and, having arrived at this camp later than the rest of the crowd, had acquired temporarily a surface that was certainly a great. It was so much evident that he was able to take two steps and have around at it before the outside of the uniform began to move at all. When we saw him last he was hoping that he wouldn't have occasion to use his pocketbook while visiting, he being afraid that the uniform might fly off on the way down, leaving him in on the condition for dropping in on strangers.

* * *

It is pleasing to note the decided improvement in aeronautical advertising since suggestions for more beautiful and interesting advertisements were first made in this column. A prospectus of the National High Flyer Air Meet in Denver, Col. has been mailed to us, the cover being tastefully adorned with a sharply young lady and in a place of beauty and entirely undisturbed by anyone. The publicity director of the meet is however, should demand Vice-President of the Better Aeronautical Advertising Association and awarded a year's free dues. Let the good work go on.

* * *

The anniversary issue of *Aviation* is responsible for the statement that the weight of one of the new radial engines is 600 lb. "including the propeller base." If this engine could be installed in a place with a variable push-puller, we might have the first aerial collapse, which should be a welcome addition to any flying circus.

When Travelling in Europe

TRAVEL

THE K.L.M. WAY

FROM

LONDON and PARIS

TO

ROTTERDAM, AMSTERDAM, HAMBURG
COPENHAGEN AND MALMÖ

K.L.M. STANDS FOR COMFORT, SAFETY
AND RELIABILITY ON ALL AIR JOURNEYS

Special machines
for trips over Europe
always available

Joë-Flights
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KONINKLIJKE LUCHTVAART MAATSCHAPPIJ
- Royal Dutch Air Lines -

Head Office - THE HAGUE - HOLLAND

Cable address TRANSAERA

Learn to Fly

\$100 — Including Solo

No bond required

No charge for books

76 Students Graduated in 1925

Eight years without an accident

Room and board near

field at \$10.00 per week

We guarantee to give you standard instruction of the number of flying hours required. We also furnish planes at very moderate rates for those who wish to learn the K.L.M. flying machine and we maintain an equipment against the war plane.

The flying school of the Robertson Aircraft Corporation is one of the oldest and best known in the United States. Our instructors are regular aviators and are well able with wide experience, and our teaching equipment is the best available. In our eight years of operation our students have been distinguished pilots in their own right.

The flying field is approximately one mile from St. Louis and is easily accessible by railroad, road and boat. The field is in the largest and best privately owned field in the country and the instruction house of 1926 was built there. Mail your name and time here.

Our course includes about ten weeks depending on the individual and after completing the requirements of the set we are asked only three questions: "Can you fly?" "Can you land?" "Can you take a turn?"

It is not necessary to purchase an airplane in order to take this course.

WRITE FOR BROCHURE

Guaranteed Condition Airplanes, Ready for Immediate Fly-Away Delivery, at Prices Ranging from \$650.00 to \$1,750.00

ROBERTSON AIRCRAFT CORPORATION

OPERATORS OF THE LOUISIANA UNITED STATES AIR MAIL

LAMBERT-ST. LOUIS FLYING FIELD, ANGLOMO, MO.

When Writing to Advertisers, Please Mention AVIATION

When Writing to Advertisers, Please Mention AVIATION



What Do You Know About Airplanes?

A FEW years ago men had to learn about aircraft from personal, costly experience. They had no one to guide them—no one to point out mistakes when they were made—and therefore years were spent learning what takes months now.

THOROUGH — PRACTICAL TRAINING

Today the American School of Aviation offers you long years of experience and knowledge, which will qualify you to enter the first class and outstanding Flight Study Course in Practical Aviation which has been highly endorsed by prominent aviation authorities.

WHY TODAY

No matter whether you have worked with airplanes all your life or are just beginning on the subject you are now in a position to enter a complete and thorough course in the training and use of your own and increasing fleet, "Opportunity in the Airplane Industry."

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3021 Michigan Ave., CHICAGO, ILL.

At Your Service

Aero Supply Mfg. Co., Inc.

Manufacturers and Distributors

of
Airplane Accessories and Supplies

Call on us for anything. We will help you.

College Point, Long Island, New York.

New Designations For Air Marksmanship

The War Department has authorized designations for air marksmanship, qualification for same to be awarded badges, design for which are now being prepared for approval. The designations will be "Aerial Gunner," for qualification with aerial machine guns, and "Aerial Bomber" for qualification with aerial bombs. There are not yet any medals on the list of awards of the various branches in the new designations. However, qualifications for "Aerial Gunner" will require firing at ground targets and fire at aerial targets or target balloons at ground as well as in aerial flight after release of high altitude. The course for "Aerial Bomber" will consist of high and low altitude bombing against both ground and the enemy targets.

Aust. Soc. Warner on Inspection Tour

An extensive inspection tour of Naval Air Stations was begun on July 25 by the Assistant Secretary of the Navy for Aeronautics, Edw. P. Warner, who is now in Hampton Roads in a plane piloted by Lt. Col. George Oakley, U. S. Navy. Warner's tour will take him to all the stations on both the Atlantic and Pacific coasts and the personnel airplane manufacturing plants throughout the country. The inspection tour will include visits to the various plants on the part of the Navy for Aeronautics and will be the first part of the tour.

After a thorough inspection of all Naval Air Stations, Secretary Warner plans a similar inspection of the Navy's aviation activities.

The itinerary is as follows:

July 25, to Hampton Roads and return. July 27, to Philadelphia. July 28 and 29, to Fort Monmouth. July 30, to New York. July 31, to New York. Aug. 1, to New York. Aug. 2, to New York. Aug. 3, to New York. Aug. 4, to New York. Aug. 5, to New York. Aug. 6, to New York. Aug. 7, to New York. Aug. 8, to New York. Aug. 9, to New York. Aug. 10, to New York. Aug. 11, to New York. Aug. 12, to New York. Aug. 13, to New York. Aug. 14, to New York. Aug. 15, to New York. Aug. 16, to New York. Aug. 17, to New York. Aug. 18, to New York. Aug. 19, to New York. Aug. 20, to New York. Aug. 21, to New York. Aug. 22, to New York. Aug. 23, to New York. Aug. 24, to New York. Aug. 25, to New York. Aug. 26, to New York. Aug. 27, to New York. Aug. 28, to New York. Aug. 29, to New York. Aug. 30, to New York. Aug. 31, to New York. Sept. 1, to New York. Sept. 2, to New York. Sept. 3, to New York. Sept. 4, to New York. Sept. 5, to New York. Sept. 6, to New York. Sept. 7, to New York. Sept. 8, to New York. Sept. 9, to New York. Sept. 10, to New York. Sept. 11, to New York. Sept. 12, to New York. Sept. 13, to New York. Sept. 14, to New York. Sept. 15, to New York. Sept. 16, to New York. Sept. 17, to New York. Sept. 18, to New York. Sept. 19, to New York. Sept. 20, to New York. Sept. 21, to New York. Sept. 22, to New York. Sept. 23, to New York. Sept. 24, to New York. Sept. 25, to New York. Sept. 26, to New York. Sept. 27, to New York. Sept. 28, to New York. Sept. 29, to New York. Sept. 30, to New York. Sept. 31, to New York. Oct. 1, to New York. Oct. 2, to New York. Oct. 3, to New York. Oct. 4, to New York. Oct. 5, to New York. Oct. 6, to New York. Oct. 7, to New York. Oct. 8, to New York. Oct. 9, to New York. Oct. 10, to New York. Oct. 11, to New York. Oct. 12, to New York. Oct. 13, to New York. Oct. 14, to New York. Oct. 15, to New York. Oct. 16, to New York. Oct. 17, to New York. Oct. 18, to New York. Oct. 19, to New York. Oct. 20, to New York. Oct. 21, to New York. Oct. 22, to New York. Oct. 23, to New York. Oct. 24, to New York. Oct. 25, to New York. Oct. 26, to New York. Oct. 27, to New York. Oct. 28, to New York. Oct. 29, to New York. Oct. 30, to New York. Oct. 31, to New York. Nov. 1, to New York. Nov. 2, to New York. Nov. 3, to New York. Nov. 4, to New York. Nov. 5, to New York. Nov. 6, to New York. Nov. 7, to New York. Nov. 8, to New York. Nov. 9, to New York. Nov. 10, to New York. Nov. 11, to New York. Nov. 12, to New York. Nov. 13, to New York. Nov. 14, to New York. Nov. 15, to New York. Nov. 16, to New York. Nov. 17, to New York. Nov. 18, to New York. Nov. 19, to New York. Nov. 20, to New York. Nov. 21, to New York. Nov. 22, to New York. Nov. 23, to New York. Nov. 24, to New York. Nov. 25, to New York. Nov. 26, to New York. Nov. 27, to New York. Nov. 28, to New York. Nov. 29, to New York. Nov. 30, to New York. Dec. 1, to New York. Dec. 2, to New York. Dec. 3, to New York. Dec. 4, to New York. Dec. 5, to New York. Dec. 6, to New York. Dec. 7, to New York. Dec. 8, to New York. Dec. 9, to New York. Dec. 10, to New York. Dec. 11, to New York. Dec. 12, to New York. Dec. 13, to New York. Dec. 14, to New York. Dec. 15, to New York. Dec. 16, to New York. Dec. 17, to New York. Dec. 18, to New York. Dec. 19, to New York. Dec. 20, to New York. Dec. 21, to New York. Dec. 22, to New York. Dec. 23, to New York. Dec. 24, to New York. Dec. 25, to New York. Dec. 26, to New York. Dec. 27, to New York. Dec. 28, to New York. Dec. 29, to New York. Dec. 30, to New York. Dec. 31, to New York.

A report received from the Navy's expedition sailing in aerial survey in Alaska in charge of Lt. Col. E. P. Warner, the expedition which has been sent to the Pacific Service, the Light House Service and the Park and Beach Co. service.

Lieutenant Warner reported that the Pacific Service decided to obtain oblique photographs of various sections of the coast under survey to determine the extent, quality and type of timber in that area. These photographs were obtained on a systematic manner in the aerial survey in that the expedition received to each photograph could readily be applied to the map of the Pacific Service.

The Pacific Service was also interested in securing the exact location of lakes in the interior with a view of obtaining water power for the pulp industry. J. B. Henry, District Forester of Alaska, was taken to the flight and during the expedition to the Kuskokwim Island and the mainland, a few men and others were discovered which indicated the level of Correll Island and the numerous lakes and streams of the interior of the island, with Lewis and Clark. Considerable enthusiasm was expressed by Mr. Henry over the discovery as it will now be possible to find the entire chain of lakes with Ketchikan and the mainland. An investigation of conditions is now underway by two large pulp mill owners from the United States, with the idea of securing factories on the island.

The Park commission is also being furnished with photographs of the lakes and the lakes and streams in the immediate vicinity of the coastline. Mr. Warner, Superintendent of the Pacific Commission, was now in flight for the purpose of obtaining information toward establishing a line route in order to be possible to see from Ketchikan to Laramie and through the Polar Circle.

The Commission has expressed very sincere thanks for the splendid work done for them by the American Aerial Service.

my Expedition and have stated that the work accomplished could not have been performed in any other manner than by planes without a great expenditure of time, labor, and money.

Naval Academy Aviation Training

The 1938 Summer aviation training at the U. S. Naval Academy, Annapolis, Md., has just started, the 1938 class being the first class under instruction. This is the largest aviation training group yet at Annapolis.

In order to insure the development of flying in the Navy, the Bureau of Aeronautics has made it possible for each graduate to become familiar with the theory of flight, engine tests, gunnery, radio and with general aviation subjects, and in addition the handling of planes in the air.

The ground work is conducted by the departments of the Naval Academy under the direction of the Department of Aeronautics. Schedules of instruction are arranged by the Department of Aeronautics and the Bureau of Aeronautics and Flight Tactics. Capt. J. A. Hildreth, of the Department of Aeronautics and Flight Tactics, is the first Director of Aviation.

After an intensive course in the theory of the various subjects the student officers are given sufficient time to see the instructor first knowledge of the pilot's duties and to actually conduct operations in navigation, gunnery, radio and engineering work in the plane.

The planes made available to the Navy Department are flown by Fleet pilots and the first year's work was completed without any serious accidents, thus one failed landing due to engine trouble.

The entire first, or graduation class, is trained. The class of 1938 numbered about 400 men. There has been a small percentage of the students who have not passed the official examination. Otherwise, the entire student body may be considered as the most valuable material for Fleet pilots. The entire group in the course has been and continues to be the officers and pilots who are doing the instruction. The flying and instruction have been responsible for creating a demand for more planes. No failure is considered during

the academic year as it is withheld until the three lower classes are on the ground course. The students at the Academy for instruction and in service training are generally unskilled and there has been considerable aviation equipment which enables the student to know the structure and operation of every part.

A second or high school class in flight training has progress and preliminary. The opportunity for an aviation officer is open to every graduate, and as the ground work in theory is very thorough, the student is a qualified pilot has been developed, so that upon completion of the Annapolis course, only six months to two years are necessary to give to the Fleet pilots qualified for all branches of work apart.

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PUBLISHER'S NEWS LETTER

After several months absence from the pages of AVIATION, these messages will appear weekly and, it is hoped, by the means of bringing the publisher and the publisher into closer contact. It will not appear out of place to express, here, an appreciation of the loyal manner in which the paper has been conducted while a holiday has been enjoyed by the publisher. Perhaps, as some friends have written, there has been a freedom of editorial policy which has added to interest in the paper. It is hoped that the addition of a newly-rehabilitated member to the staff will add to the freedom of expression rather than restrict it.

To all those who write on our staff's anniversary congratulatory letters, some of which were published, a sincere appreciation is expressed. To make friends is not an easy task, especially when there are hostile opposition a year to effort, when by direct methods or through use of contacts. A birthday, however, is always a time of good cheer and, therefore, this greetings that were received added to the pleasure of the occasion most, even, than the written appreciation. Some of the letters which were sent were too personal to be published were appreciated equally as much as those which appeared in the anniversary issue. The complimentary expressions that were received have played an added responsibility on the publisher and it is hoped that during the next decade, AVIATION may not only retain its greatest adherents but add to its ever growing circle of friends.

The writer has had a rare opportunity of flying over some of the main air routes that are being operated in Europe. In fifty-four days, he flew twenty-one thousand miles and visited twenty-eight countries—and in the two hundred and thirty-four hours that he was in the air, not one of the one hundred and thirty countries gave any trouble and no forced landings were made. In these days, when the safety of air travel is discussed so generally and when an accident is given such prominence, it is well to remember that all routes of transportation have an accident percentage and aircraft must expect to have its share placed alongside automobiles, railroads and steamships. As the airplane, yet loaded, has been considered by many to have less danger in the extent of territory covered, disappointment of these facts which it is hoped will counter the realism of AVIATION, will appear from time to time. Renewed aviation are often born. They often wish to express those who will listen to their tales with the wonderful extent of their

experiences. It is hoped that this will not be the case with the article that appear as they will be less true reports and will more an account of those conditions of the early foreign air lines.

The opportunity of making such an extensive trip, which extended as far East as Moscow, Constantinople and Baghdad, as far South as Cairo, Palermo and Cordoba and a cross country of Europe from Stockholm, Copenhagen, Warsaw, Prague, Vienna, Geneva, Rome, Amsterdam and Amsterdam to Paris and London is due to the many contacts extended by the governments and air lines of Europe. They opened up their routes to a representation of the readers of AVIATION and as a result country a description of their operations will be given when the time and opportunity permits. The hospitality that is extended to those interested in aviation is beyond a simple description and will be recorded in due course. Any impression that the countries were personal would be incorrect, as every American who has had a serious purpose in visiting the airports and flying the air routes has received the most generous welcome. The international relationship among aircraft people is a basic quality that will go far in the future toward creating a better understanding between governments. When travel between countries is so convenient and quick, the old barriers of distance disappear and what previously seemed a long journey, is today an hour's flight. This fact is being given more and more consideration by the political leaders of all countries and yet a small part of the development made possible by government encouragement is based on this advantage.

The earlier expansion of American air transport operations and the future possibilities here to a great extent have the result of a similar expansion in Europe. While the conditions in the United States are totally different from those in Europe, there are certain fundamental facts and here that should receive the most careful analysis before the number of routes are here expanded. If, as we forecast will spread the network of routes all over the world within a few years as a necessity. The United States now leads in commercial aviation. Europe has civil aviation subsidized by governments. Both have their faults, the latter leading into the former. If the United States can put its transport on a sound basis without subsidies, it will have a powerful effect on aerial development throughout the world.—L.D.G.

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